Reg. No. GR/RNP/GOA/32 | 2003 YEAR OF THE CHILD | RNI No. GOAENG/2002/6410

Panaji, 19th June, 2003 (Jyaistha 29, 1925) SERIES I No. 12

OFFICIAL GAZETTE

GOVERNMENT OF GOA

GOVERNMENT OF GOA

Department of Agriculture

Directorate of Agriculture

Notification

3/5/EXT/19/2002-03/D.Agri/

In pursuance of clause No. 26 of the F.C.O. 1985 the Dy. Director of Agriculture (Ext). is hereby de-notified as 'Registering Authority'.

Further, the Government is pleased to appoint the Dy. Director of Agriculture (Ext.) as the "Notified Authority" under clause 26 A of the Fertilizer Control Order 1985 for acceptance of memorandum of intimation from the Fertilizer dealers.

The area jurisdiction of the "Notified Authority" will be the Entire State of Goa (South Goa and North Districts).

This comes into effect from the date of publication of this Notification in the Gazette of Goa Government and is in supersession of previous Notification No. 3/5/EXT/M&F/19/2000--01/D.AGRI/41 dated 16-5-01.

W. M. Khade, Director of Agriculture & ex officio Joint Secretary.

Panaji, 11th March, 2003.

Notification

3/5/EXT/19/2003-04/D.Agri/40

The Fertilizer (Control) Amendment Orders, 2003 published by G.O.I. in the Gazette of India Extraordinary, Part II, Sec. 3(ii) dated 16th January, 2003 vide S.O.49(E) and S.O. 50(E) are hereby published for general information of the public.

W. M. Khade, Director of Agriculture & ex officio Joint Secretary.

Panaji, 5th June, 2003.

MINISTRY OF AGRICULTURE

(Department of Agriculture and Cooperation)

Order

New Delhi, the 16th January, 2003

S.O.49(E).— In exercise of the powers conferred by section 3 of the Essential Commodities Act, 1955 (10 of 1955), the Central Government hereby makes the following Order further to amend the Fertiliser (Control) Order, 1985, namely:—

1. (*1*) This Order may be called the Fertiliser (Control) Amendment Order, 2003.

(*2*) It shall come into force on the date of its publication in the Official Gazette.

2. In the Fertiliser (Control) Order, 1985 (hereinafter referred to as the said Order), in clause 2,—

(*i*) after sub clause (*n*), the following sub--clause shall be inserted, namely:—

'(*nn*) "Notified Authority" means an authority appointed under clause 26 A.';

(*ii*) in sub-clause (*s*), after the word and figures "clause 26", the words "in respect of mixture of fertilizers and special mixture of fertilizers" shall be inserted.

3. For chapter heading "IV. REGISTRATION OF DEALERS" of the said Order, the chapter heading "IV. AUTHORISATION OR REGISTRATION OF DEALERS" shall be substituted.

4. For clause 7 of the said Order, the following clause shall be substituted, namely:—

"7. **Registration of Industrial dealers and authorisation of other dealers.**— No person shall sell, offer for sale or carry on the business of selling of fertilizer at any place as wholesale dealer or retail dealer except under and in accordance with clause 8:

Provided that a State Government may, if it considers it necessary or expedient, by notification in the Official Gazette, exempt from the provisions of this clause any person selling fertilizer to farmers in such areas and subject to such conditions as may be specified in that notification.".

5. For clause 8 of the said Order, the following clauses shall be substituted, namely:—

"8 Application for intimation or registration

(*1*) Every person intending to sell or offer for sale or carrying on the business of selling of fertilizer as Industrial Dealer shall obtain a certificate of registration from the controller by making an application in Form A together with the fee prescribed under clause 36 and a Certificate of source in Form O.

(*2*) Every person including a manufacturer, an importer, a pool handling agency, wholesaler and a retail dealer intending to sell or offer for sale or carrying on the business of selling of fertilizer shall make a Memorandum of Intimation to the Notified Authority, in Form A1 duly filled in, in duplicate, together with the fee prescribed under clause 36 and certificate of source in Form O.

(*3*) On receipt of a Memorandum of Intimation, complete in all respects, the Notified Authority shall issue an acknowledgement of receipt in Form A2 and it shall be deemed to be an authorisation letter granted and the concerned person as authorised dealer for the purposes of this Order:

Provided that a certificate of registration granted before the commencement of the Fertiliser (Control) Amendment Order, 2003, shall be deemed to be an authorization letter granted under the provisions of this Order:

Provided further that where the applicant is a State Government, a manufacturer or an importer or a pool-handling agency, it shall not be necessary for it or him to submit Form O:

Provided also that a separate Memorandum of Intimation shall be submitted by an applicant for whole sale business or retail dealership, as the case may be:

Provided also that where fertilizers are obtained for sale from different sources, a certificate of source from each such source shall be furnished in Form O.".

6. In clause 9 of the said Order,—

(*i*) in the opening portion, the words "registering authority or as the case may be the" shall be omitted;

(*ii*) in the proviso, in clause (*f*), for the words "a valid certificate of registration", the words "an authorisation letter" shall be substituted.

7. For clause 10 of the said Order, the following clause shall be substituted, namely:—

"10. Period of validity of certificate of registration and letter of authorization.

Every certificate of registration granted under clause 9 and every authorization letter issued under clause 8 shall, unless renewed, suspended or cancelled, be valid for a period of three years from the date of its issue."

8. For clause 11 of the said Order, the following clause shall be substituted, namely:—

"11. Renewal of certificates of registration and authorization letters

(*1*) Every holder of a certificate of registration granted under clause 9 or authorization letter granted or deemed to have been granted under clause 8, desiring to renew such certificate or authorization letter shall, before the date of expiry of such certificate of registration or authorization letter, as the case may be, make an application for renewal to the Controller, in Form C, or to

the Notified Authority in Form A1, respectively, in duplicate, together with the fee prescribed under clause 36 for such renewal and a certificate of source as required under clause 8.

(2) On receipt of an application under sub-clause (1), together with such fee and certificate of source, the controller may renew the certificate of registration or the Notified Authority, as the case may be shall issue acknowledgement receipt of renewal in Form A 2:

Provided that a certificate of registration shall not be renewed if the holder of the same did not sell any fertiliser during the period of one year immediately preceding the date of expiry of the period of validity.

(3) If any application for renewal is not made before the expiry of the period of validity of the certificate of registration or, as the case may be, the authorization letter but is made within one month from the date of such expiry, the certificate of registration or, as the case may be, the authorization letter shall be dealt as provided in sub-clause (2) on payment of such additional fee as may be prescribed under clause 36 in addition to the fee for renewal.

(4) Where the application for renewal of certificate of registration is made within the time specified in sub- clause (1) or sub-clause (3), the applicant shall be deemed to have held a valid certificate of registration until such date as the controller passes orders on the application for renewal.

(5) If an application for renewal of a certificate of registration or authorisation letter is not made within one month from the date of expiry of their period of validity, the same shall be deemed to have lapsed on the date on which its validity expired and any business carried on after that date shall be deemed to have been carried on in contravention of clause 7.".

9. In clause 13 of the said Order, sub-clause (3) shall be omitted.

10. In clause 15 of the said Order,—

(*i*) for sub-clause (1), the following sub-clause shall be substituted, namely:—

"(1) On receipt of an application under clause 14, the registering authority shall, by order in writing, either grant or refuse to grant the certificate of manufacture in respect of any mixture of fertilizer or special mixture of fertilizer and shall, within forty--five days from the date of receipt of the application, furnish to the applicant a copy of the order so passed.";

(*ii*) in sub-clause (2),—

(*a*) for the words "the registering authority shall grant", the words, "the registering authority shall, within forty-five days from the date of receipt of the application, grant" shall be substituted;

(*b*) for the words "such authority shall grant", the words "such authority shall, within forty-five days from the date of receipt of the application, grant" shall be substituted.

11. In clause 16 of the said Order, in sub-clause (2),—

(*i*) for the words "three months", the words "six months", shall be substituted;

(*ii*) in the proviso, for the words "six months", the words, "twelve months" shall be substituted.

12. In clause 18 of the said Order, in sub-clauses (2), (3) and (4), for the words "certificate of registration" wherever they occur, the words "certificate of manufacture" shall be substituted.

13. In clause 19 of the said Order, in item (*c*), in sub-item (*ii*), for the words "imitation or", the words "imitation of or" shall be substituted.

14. After clause 20 of the said Order, the following clause shall be inserted, namely:—

"20 A. Specification in respect of provisional fertilizer

Notwithstanding anything contained in this Order, the Central Government may, by order published in the Official Gazette, notify specifications, valid for a period not exceeding three years, in respect of fertilizers to be manufactured by any manufacturing unit for conducting commercial trials.".

15. In clause 21 of the said Order,—

(*i*) for paragraph (*a*), the following paragraph shall be substituted, namely:—

"(*a*) Every container in which any fertiliser is packed shall conspicuously be superscribed with the word "FERTILISER" and shall bear only such particulars and unless otherwise required under any law nothing else, as may from time to time, be specified by the Controller in this behalf; and";

(*ii*) after paragraph (*b*), the following paragraph shall be inserted, namely:—

"(c) Every fertiliser bag in which any fertiliser is packed for sale shall be of such weight and size as may be specified by the Central Government from time to time in this behalf.".

16. In clause 23 of the said Order,—

(*i*) in sub-clause (*1*),—

(*a*) for the words "any fertiliser", the words "any fertiliser except any fertiliser imported by the Central Government," shall be inserted;

(*b*) for the words "registering authority", the words "Notified Authority" shall be substituted;

(*ii*) in sub-clause (*2*) for the words "registering authority", the words "Notified Authority" shall be substituted;

(*iii*) after sub-clause (*3*), the following sub-clause shall be inserted, namely:—

"(*4*) Where any fertiliser imported by the Central Government is found to be of non-standard and the Central Government decides that the fertilizer cannot be permitted for direct use in agriculture, it may permit the use of such fertiliser by manufacturers of complex fertilisers, mixture of fertilisers or special mixture of fertilisers to be sold at such price as may be fixed by the Central Government."

17. In clause 26 of the said Order, the words, "excepting for grant or renewal of certificate of registration for Industrial dealers" shall be omitted.

18. After clause 26 of the said Order, the following clause shall be inserted, namely:—

"**26A. Notified Authority**.— The State Government may, by notification in the Official Gazette, appoint such number of persons, as it thinks necessary, to be Notified Authorities for the purpose of this Order and define the local limits within which each such Notified Authority shall exercise his jurisdiction.".

19. In clause 28 of the said Order, in sub-clause (*1*), in paragraph (*d*), for the words "about to be committed," the words "attempted to be committed" shall be substituted.

20. (*i*) The existing clause 29 of the said Order shall be re-numbered as sub-clause (*1*) thereof;

(*ii*) in sub-clause (*1*) as so renumbered, the words "with the prior approval of the Central Government" shall be added at the end;

(*iii*) after sub-clause (*1*) as so re-numbered, the following sub-clause shall be inserted namely:—

"(*2*) Every laboratory referred to in sub-clause (*1*) shall, in order to ensure accurate analysis, of fertiliser samples, possess minimum equipment and other laboratory facilities, as may be specified from time to time by the Controller in this behalf.".

21. After clause 29 A of the said Order, the following clause shall be inserted, namely:—

"29 B. Laboratories for referee analysis

(*1*) Every laboratory referred to in sub-clause (*1*) of clause 29 shall be designated as referee laboratory for the purpose of analysis of any sample of fertiliser:

Provided that no such laboratory which carried out the first analysis of the fertiliser sample shall be so designated in respect of that sample:

Provided further that in respect of any sample the analysis of which has been challenged, may be sent for referee analysis to any one of the other laboratories except those which are located in the State or where the first analysis has been done.

Provided also that the Central Fertiliser Quality Control and Training Institute and Regional laboratories shall be considered as one group of laboratories and a sample first

analysed by any one of them, shall not be sent for referee analysis to any other in that group, but only to any other laboratory notified by a State Government.

(2) Notwithstanding anything contained in this Order, the Appellate Authority as specified under paragraph (*b*) of sub-clause (*1*) or paragraph (*b*) of sub-clause (*2*) of clause 32, in case of sample analysed by the State Government laboratory, or the Controller, in case of samples analysed by Central Fertiliser Quality Control and Training Institute, Faridabad or its Regional Fertiliser Control Laboratories, as the case may be, shall decide and send, one of the two remaining samples, for reference analysis as provided under sub-clause (*1*).".

22. In clause 30 of the said Order,—

(*i*) in sub-clause (*2*), for the figures and word "60 days", the figures and word "30 days" shall be substituted;

(*ii*) in sub-clause (*3*), for the figures and word "30 days" the figures and word "15 days" shall be substituted.

23. For clause 31 of the said Order, the following clause shall be substituted, namely:—

"31 Suspension, Cancellation Or Debarment

(*1*) A Notified Authority, registering authority, or as the case may be, the controller may, after giving the authorized dealer or the holder of certificate of registration or certificate of manufacture or any other certificate granted under this Order, an opportunity of being heard, suspend such authorization letter or certificate or debar the dealer from carrying on the business of fertilizer on one or more of the following grounds, namely:—

(*a*) that the authorization letter or certificate of registration or certificate of manufacture, as the case may be, has been obtained by wilful suppression of material facts or by misrepresentation of relevant particulars:

(*b*) that any of the provisions of this Order or any terms and condition of the Memorandum of Intimation or certificate of registration or the certificate of manufacture, as the case may be, has been contravened or not fulfilled;

Provided that while debarring from carrying on the business of fertiliser or cancelling the certificate, the dealer or the certificate holder thereof may be allowed for a period of thirty days to dispose of the balance stock of fertilizers, if any, held by him:

Provided further that the stock of fertilizer lying with the dealer after the expiry of the said period of thirty days shall be confiscated.

(*2*) Where the contravention alleged to have been committed by a person is such as would, on being proved, justify his debarment from carrying on the business of selling of fertilizer or, cancellation of authorization letter or certificate of registration or certificate of manufacture or any other certificate granted under this Order to such person the Notified Authority or registering authority or, as the case may be, the controller may, without any notice, suspend such certificate, authorization letter, as an interim measure:

Provided that the registering authority, Notified Authority or, as the case may be, the controller shall immediately furnish to the affected person details and the nature of contravention alleged to have been committed by such person and, after giving him an opportunity of being heard, pass final orders either revoking the order of suspension or debarment within fifteen days from the date of issue of the order of suspension:

Provided further that where no final order is passed within the period as specified above, the order of interim suspension shall be deemed to have been revoked without prejudice, however, to any further action which the registering authority, Notified Authority or, as the case may be, the controller may take against the affected person under sub-clause (*1*).

(*3*) Wherever an authorization letter or certificate is suspended, cancelled or the person is debarred from carrying on the business of fertiliser, the Notified Authority, registering authority, or as the case may be, the Controller shall record a brief statement of the reasons for such suspension or, as the case may be, cancellation or debarment and furnish a copy thereof to the person whose certificate or authorization letter has been suspended or cancelled or business has been debarred.

(*4*) Wherever the person alleged to have committed the contravention is an industrial

dealer, the Notified Authority may take action against the holder of such certificate of registration under sub-clause (*1*) and sub-clause (*2*):

Provided that where such certificate is suspended or cancelled, the Notified Authority shall, within a period of fifteen days from the date of issue of such order of suspension or cancellation, furnish to the controller also, besides sending the same to the person whose certificate has been suspended or cancelled, a detailed report about the nature of contravention committed and a brief statement of the reasons for such suspension or, as the case may be, cancellation:

Provided further that the controller, shall, in case of the order for suspension passed by the Notified Authority, on receipt of the detailed report and after giving the person an opportunity of being heard, pass final order either revoking the order of suspension or cancelling the certificate of registration, within fifteen days from the date of receipt of the detailed report from the Notified Authority, failing which the order of interim suspension passed by the Notified Authority shall be deemed to have been revoked, without prejudice however, to further action which the controller may take against the holder of certificate under sub-clause (*1*):

Provided also that the order of cancellation passed by the Notified Authority shall remain effective as if it had been passed by the controller till such time the Controller, on receipt of the detailed report from the Notified Authority, and if deemed necessary, after giving the person a fresh opportunity of being heard, pass the final order either revoking or confirming the order of cancellation." .

For clause 32 of the said Order, the following clauses shall be substituted, namely:—

"**32. Appeals at Central Government level**

(*1*) In any State, where the fertiliser allocation is made by the Central Government under this Order and if the suspension or cancellation of authorisation letter of the manufacturer and or pool handling agency or debarment of business, in any way, has an effect of dislocating the said allocation and if the Central Government is of the opinion that it is necessary or expedient so to do for maintaining the supplies, may direct the concerned State Government to furnish detailed report about the nature of contravention and a brief statement of the reasons for such suspension or cancellation and pass such order as it may think fit, confirming, modifying or annulling the order of State Government:

Provided that if the report called by the Central Government is not received from the State Government within a period of fifteen days from the date of issue of the communication, the Central Government may decide the case without the report, on merit.

(*2*) Any person aggrieved by the analysis report of Central Fertiliser Quality Control and Training Institute or its regional laboratories may appeal to the Controller for referee analysis of such sample within a period of 30 days from the receipt of analysis report.

32A. **Appeal at the State Government level**

(*1*) The State Government shall, by notification in the Official Gazette, specify such authority as the Appellate authority before whom the appeals may be filed by any person, except by an industrial dealer, aggrieved by any of the following Orders or action of registering authority or a Notified Authority, namely:—

(*i*) refusing to grant a certificate of manufacture for preparation of mixture of fertilisers or special mixture of fertilizers; or

(*ii*) suspending or cancelling a certificate of manufacture; or

(*iii*) suspending or cancelling authorization letter or debarring from carrying on the business of selling of fertilizer, or

(*iv*) non-issuance of Authorisation letter or certificate of manufacture within the stipulated period; or

(*v*) non-issuance of amendment in authorisation letter within the stipulated period.

(*2*) Any person aggrieved by analysis report of fertilizer Testing laboratories notified by the State Government may appeal to the appellate authority appointed under sub-clause (*1*) for reference analysis of such sample within thirty days from the date of receipt of analysis report.".

25. In clause 33 of the said Order,—

(*i*) in the heading, after the words "copies of", the words "authorisation letter or certificate of manufacture" shall be inserted;

(*ii*) after the word "where ", the words "an authorization letter or" shall be inserted;

(*iii*) for the word "lost", the words "lost or defaced, the Notified Authority" shall be substituted.

26. Per clause 34 of the said Order, the following clause shall be substituted, namely:—

"34 Amendment of authorisation letter, certificate of manufacture and certificate of Registration

The Notified Authority, registering authority or controller, as the case may be, may, on application being made by the holder of an authorization letter, a certificate of registration or certificate of manufacture, together with the fee prescribed for the purpose under clause 36, amend an entry in such authorization letter, certificate of Registration or certificate of manufacture, as the case may be.".

27. In clause 36 of the said Order, in sub-clause (*1*),—

(*i*) the words "with prior approval from the Controller" shall be omitted;

(*ii*) after the words "amendment or renewal ot", the words "an authorization letter or" shall be inserted;

(*iii*) The proviso shall be omitted.

28. In clause 38 of the said Order, in sub-clause (*4*), the words "or wholly of co-opted members" shall be omitted.

29. In Schedule I of the said Order, in Part- A, under the heading "SPECIFICATION OF FERTILISER." ,—

(*i*) in sub-heading "1(d) NP fertilizers", "1(e) NPK fertilizers" and "1(j) potassium magnesium fertilizers", for the word "Fertiliser", the words "Complex Fertilisers" shall be substituted;

(*ii*) in the entries under sub-headings "1(a) STRAIGHT NITROGENOUS FERTILISERS", "1(b) STRAIGHT PHOPHATIC FERTILISERS" [except in serial number 4, item (vi)], "1(c) STRAIGHT POTTASSIC FERTILISERS", "1(d) NP FERTILISERS", "1(e) NPK FERTILISERS", "1(g) FORTIFIED FERTILISERS," 1(h) NK FERTILISER and "1(j) POTASSIUM MAGNESIUM FERTILISER", for the words "particle size", wherever they occur, the words "Particle size- Not less than" shall be substituted;

(*iii*) under sub-heading "1(f) MICRO-NUTRIENTS",—

(*a*) in serial number 1 relating to Zinc Sulphate Heptahydrate (ZnSO4.7H2O), item (i) and the entry relating thereto shall be omitted;

(*b*) after serial number 11 relating to Magnesium Sulphate and the entries relating thereto, the following serial number and entries shall be inserted, namely:—

"12. Boric Acid (H3BO3)

(i) Boron (as B) per cent. weight, minimum	17.0
(ii) Matter insoluble in water, per cent. by weight, maximum	1.0
(iii) Lead (as Pb) per cent. by weight, maximum	0.003";

(*iv*) for sub-heading "1(h) N. K. Fertilisers", the sub-heading "1(h) 100% water soluble Complex Fertilisers" shall be substituted;

(*v*) (*a*) the sub-heading "1(i) P. K. fertilisers" shall be omitted; and

(*b*) serial number 1 relating to Mono-Potassium phosphate (0-52-34) (100% water soluble) and the entries relating thereto shall be re-numbered as serial number 3 under the existing sub-heading "1 (h) NK fertilizer."

(*vi*) (*a*) the sub-heading "1 (k) Nitrogen Calcium fertilizer shall be omitted; and

(*b*) serial number 1 relating to 'Calcium Nitrate' and the entry relating thereto shall be re-numbered as serial number 4 under the existing sub-heading "1 (h) NK fertilizer.";

(*c*) in sub-heading 1(h), after serial number 4, as so re-numbered and the entries relating

thereto, the following serial numbers and entries shall be inserted, namely:—

"5. NPK 13:40:13 (100% water soluble)

(i) Total Nitrogen per cent. by weight, minimum	13.0
(ii) Nitrate nitrogen, per cent. by weight maximum.	4.4
(iii) Ammonical nitrogen per cent. by Weight, minimum.	8.6
(iv) Water soluble phosphate (as P2O5) per cent. by weight, minimum.	40.0
(v) Water soluble potash as K2O, per cent. by weight, minimum	13.0
(vi) Sodium (as NaCl) per cent. by weight on dry basis, maximum.	0.15
(vii) Matter insoluble in water per cent. by weight, maximum.	0.5

6. NPK 18:18:18 (100% water soluble)

(i) Total Nitrogen per cent. by weight, minimum	18.0
(ii) Nitrate nitrogen per cent. by weight, maximum.	9.8
(iii) Ammonical nitrogen per cent. by weight, minimum.	8.2
(iv)Water Soluble phosphate (as P2O5) per cent. by weight, minimum.	18.0
(v) Water soluble potash (as K20) per cent. by weight, minimum.	18.0
(vi) Sodium as NaCl per cent. by weight, on dry basis maximum.	0.25
(vii) Matter insoluble in water per cent. by weight, maximum.	0.5

7. NPK 13:5:26 (100% water soluble)

(i) Total Nitrogen per cent. by weight, minimum	13.0
(ii) Nitrate nitrogen per cent. by weight, maximum.	7.0
(iii) Ammonical nitrogen per cent. by weight, maximum.	6.0
(iv) Water soluble Phosphate (as P2O5) per cent. by weight, minimum	5.0
(v) Water soluble potash as K20 per cent. by weight, minimum.	26.0
(vi) Sodium as NaCl per cent. by weight, on dry basis	0.3
(vii) Matter insoluble in water per cent. by weight, maximum.	0.5

8. NPK 6:12:36 (100% water soluble)

(i) Total Nitrogen per cent. by weight, minimum	6.0
(ii) Nitrate nitrogen per cent. by weight, maximum.	4.5
(iii)Ammonical nitrogen per cent. by weight minimum.	1.5
(iv) Water Soluble Phosphate(as P2O5) per cent. by weight, minimum.	12.0
(v) Water soluble potash per cent. by weight, minimum.	36.0
(vi) Sodium as NaCl per cent. by weight, maximum.	0.5
(vii) Matter insoluble in water per cent. by weight, maximum.	0.5

9 NPK 20:20:20 (100% water soluble)

(i) Total Nitrogen per cent. by weight, minimum	20.0
(ii) Nitrate nitrogen per cent. by weight, maximum.	4.9
(iii) Ammonical nitrogen per cent. by weight, minimum.	3.0
(iv) Urea nitrogen per cent. by weight, maximum.	12.1
(v) Water soluble Phosphate (as P2O5) per cent. by weight minimum	20.0
(vi) Water soluble potash as K2O, per cent. by weight, minimum.	20.0
(vii)Sodium. as NaCl per cent. by weight on dry basis, maximum.	0.06
(viii)Matter insoluble in water per cent. by weight, maximum.	0.5".

30. In Schedule I of the said Order, in Part-B relating to "TOLERANCE LIMIT IN PLANT NUTRIENT FOR VARIOUS FERTILISERS",—

(*i*) in the heading, after the words "PLANT NUTRIENT", the words "AND PHYSICAL PARAMETER" shall be inserted;

(*ii*) after serial number 9 and the entries relating thereto, the following serial number and entries shall be inserted, namely:—

"10. Particle size	3 units
11. Moisture	0.3 unit".

31. In Schedule II of the said Order, in Part-A, under the heading "PROCEDURE FOR DRAWAL OF SAMPLES OF FERTILIZERS",—

(*i*) in serial number 1 relating to general requirements of sampling,—

(*a*) in item (*e*), for the word and letter "Form 'J'", the word and letter "Form P" shall be substituted; and

(*b*) in item (*f*), for the words "type and brand of fertilizer/name of dealer/ /manufacturer/importer", the words "and type of fertilizer" shall be substituted;

(*ii*) under serial number 2 relating to, sampling from bagged material, in item (*i*), for sub-item (*c*) and the entries relating thereto, the following sub-item and entries shall be substituted, namely:—

"(c) selection of bags for sampling

The number of bags to be chosen from a lot shall depend upon the size of the lot as given below:—

Lot size (Number of bags)(N)-	Number of bags to be selected for sampling(n)
upto 10	1
11- 100	2
101- 200	3
201- 400	4
401- 600	5
601- 800	6
801- 1000	7
1001 - 1300	8
1301 - 1600	9
1601 - 2000	10";

(*iii*) in serial 6 relating to preparation of test and reference sample, for item (iv), the following item shall be substituted, namely:—

"(*iv*) Out of the three samples collected, one sample so sealed shall be sent to the Incharge of the Laboratory notified by the State Government under clause 29 of Central Fertiliser Quality Control and Training Institute, Faridabad or Regional Fertiliser Control Laboratories at Mumbai, Chennai or Kalyani (Kolkota) for analysis. Another sample shall be given to the manufacturer or importer or dealer or the purchaser, as the case may be. The third sample shall be sent by the inspector to his next higher authority for keeping in safe custody. Any of the latter two samples may be sent for referee analysis as provided for under sub-clause (2) of clause 29 B";

(*iv*) under serial number 7 relating to Sampling from bulk fertiliser in ships, bulk carrier and bulk containers, in item (*ii*), for sub-item B, the following sub-item shall be substituted, namely:—

"B. *Sampling from hatch*—

In case of bulk fertilisers, from each hatch at least 10-15 samples shall be drawn from different-depth and different points during unloading operations. All the samples drawn from each hatch of the ship, bulk carrier or bulk containers, as the case may be, to be mixed together to make hatch composite sample. Then the composite sample shall be prepared by mixing part of each hatch composite. Further test sample and reference sample shall be prepared as indicated in paragraph 6 of Schedule II, Part-A".

32. In Schedule II of the said Order, in part-B relating to Methods of Analysis of Fertilizers,—

(*i*) in serial number 1 relating to "Preparation of samples for analysis in the laboratory",—

(*a*) in item (*b*), for the words, figures and letters "sieve with 1mm circular opening or No.20 standard sieve", the words, figures and letters "sieve with 1 mm IS sieve" shall be substituted;

(*b*) in item (*c*), for the figures and words "No. 40 standard sieve", the words, figures and letters "through 0.425 mm IS sieve" shall be substituted;

(*ii*) in serial number 2, relating to determination of moisture,—

(*a*) for the heading "Determination of moisture", the heading "Determination of moisture oven dry method" shall be substituted;

(*b*) in sub-heading "(i) Procedure", in item (c), after the figures and letter "129-131C", the words figures, letter and sign "for urea, heat at 70 °C±5 °C for 5 hours" shall be inserted;

(c) for the sub-heading "(ii) moisture in ammonium chloride", the sub-heading "(ii) moisture in ammonium chloride", "Vacuum

desicator method - (applicable to Ammonium Chloride, CAN,DAP, all complexes and NPK mixtures)", shall be substituted.

33. In Schedule II of the said Order, in Part B, under the sub-heading **"2. Determination of moisture"**, for item (iii), the following item shall be substituted, namely:—

"(iii) *Karl Fischer Method*—

(Scope- This method is applicable to fertilizers like Urea, CAN and Urea based complexes. This method is not suitable for phosphate rock based fertilizers and fertilizers containing monocalcium phosphate, calcium sulphate, alkali carbonates and bicarbonates, aldehydes and ketonic groups, etc.).

(a) *Apparatus*

Karl Fisher Titrator.

(b) *Reagents*

(1) Karl Fisher Reagent-Karl Fisher solution (pyridine free)(single solution)

(2) Di-sodium Tartarate dihydrate ($Na_2C_4O_6 2H_2O$)-AR Grade.

(3) Methanol-KF grade/Spectroscopy grade containing less than 0.05% water.

(c) *Procedure*

1. Standardization of KF reagent:

(i) Set up the instrument.

(ii) Add methanol to the titration vessel until the electrodes are dipped and titrate with Karl Fisher reagent to a pre set end point persists for 30 seconds.

(iii) Add 100 mg. of the disodium tartarate dihydrate to the titration vessel carefully and titrate with Karl Fisher reagent to a pre-set end point (the end point should persist for 30 seconds). Note the volume of KF reagent used as V_1ml.

2. *Determination of moisture of sample:*—

(i) Weigh accurately about 1 gm of the prepared sample and transfer to titration vessel carefully and stir until dispersed.

(ii) Titrate with KF reagent to the same pre-set end point as above and note the volume of KF reagent used as V_2ml.

(d) *Calculation* :

Factor (F) (mg H_2O/1 ml of KF reagent)

$$= \frac{0.1566 \times \text{mg of Sodium tartarate dihydrate added}}{V_1}$$

$$\text{Moisture percent in Sample by weight} = \frac{F \times V2}{\text{Wt. of sample (g)} \times 10}$$

(*Reference* - Method II d .4 TFI (1992) AOAC 972.01 (1995.)".

In Schedule II of the said Order, in Part B, under sub-heading **"3. Determination of nitrogen"**,—

(*i*) in item (*ii*) relating to reagents for determination of total nitrogen, in sub-item "Caution", for the word "Nitrites", the word "Nitriles" shall be substituted;

(*ii*) in item (*iii*) relating to apparatus, in paragraph (*b*), for the word "filled", the word "fitted" shall be substituted;

(*iii*) in item (*iv*) relating to "Total nitrogen (in nitrate free samples)", for sub-item "(*a*) *Procedure*" and the entries relating thereto, the following sub-item and entries shall be inserted, namely:—

"(*iv*) *Total Nitrogen (in nitrate free samples)*

(*a*) *Procedure*

(1) Weight 1 gm prepared sample and place in the kjeldahl flask (capacity 800 ml).

(2) Add 0.7g copper sulphate, 15 g K_2SO_4 or anhydrous Na_2SO_4 and 50 ml. conc. H_2SO_4.

(3) Place flask in inclined position and heat gently until frothing ceases. (If necessary, add small amount of paraffin to reduce frothing).

(4) Boil briskly until solution clear and then continue digestion for 30 minutes more.

(5) Remove from burner and cool, add 200 ml of water and swirl the flask to dissolve the contents.

(6) Transfer to 500 ml volumetric flask giving several washing with water to the digestion flask, cool and make up the volume to the mark.

(7) Take 25 ml aliquot in the distillation flask, add 300 ml of water and a pinch of zinc dust.

(8) Take 20 ml of standard acid solution in the receiving conical flask. Add 4-5 drops of methyl red indicator and keep the flask at the lower end of condenser in; such a way that the lower tip of the condenser is fully immersed in acid solution.

(9) Add 30 ml of 45% NaOH to the distilling flask gently so that the contents don't mix.

(10) Immediately connect the distillation flask to the distillation assembly and swirl to mix the contents. Heat until all ammonia is distilled (at least 150 ml distillate). Test with red litmus paper, if any ammonia is still coming out.

(11) Remove receiving flask. Rinse outlet tube into receiving flask with a small amount of distilled water.

(12) Titrate the contents in the receiver conical flask with N/10 NaOH.

(13) Determine blank on reagents using same quality of standard acid in receiver conical flask.

(*b*) *Calculation*:

$$\text{Nitrogen percent (by weight)} = \frac{1.401(V_1N_1-V_2N_2)-(V_3N_1-V_4N_2)\times df}{W}$$

Where:—

V_1 = Volume (in ml) of standard acid taken in receiver flash for sample.

V_2 = Volume (in ml) of standard NaOH used in titrating standard acid in receiver flask after distillation.

V_3 = Volume (in ml) of standard acid taken in receiver flask for blank.

V_4 = Volume (in ml) of standard NaOH used in titrating standard acid in receiver flask after distillation in blank.

N_1 = Normality of standard acid.

N_2 = Normality of standard NaOH

W = Weight (in gm) of sample taken

df = Dilution factor of sample.".

(*iv*) in item (*v*) relating to total nitrogen (for nitrate containing samples), for the brackets and words "(Not applicable to samples containing high concentrations of nitrate nitrogen and chlorides), the brackets, words, letters and figure "(Not applicable to samples containing Cl:NO_3 ratio)" shall be substituted;

(*v*) after item (v) relating to total nitrogen (for Nitrate containing samples), the following item and entries relating thereto shall be inserted, namely:—

"(vA) *Nitrogen (total) (applicable to all Fertilisers by modified comprehensive method)*

(a) Reagents :—

(a) Sulfuric acid -93-98% H_2SO_4 N Free.

(b) Potassium Sulphate (or anhydrous sodium sulphate) -Reagent grade, N Free.

(c) Sodium Hydroxide -45%

(d) Methyl red indicator -Dissolve 1 gm methyl red in 200 ml alcohol.

(e) Standard Hydrochloric acid or sulfuric acid solution -N/10

(f) Sodium hydroxide standard solution - N/10

(g) Chromium metal- 100 mesh

(h) Alundum - Boiling stones, 8-14 mesh

(i) Copper sulphate pentahydrate -Reagent grade.

(b) Procedure :

(*1*) Take accurately 1.0g sample (or quantity containing not more than 60 gm nitrate nitrogen) in Kjeldahl flask. Add 1.2 g Chromium powder and 35 ml water.

(*2*) Let it stand for 30 minutes with occasional gentle swirling to dissolve all nitrate salts. Add

7 ml. Hydrochloric acid and let it stand for 30 minutes. Add 15 g K_2SO_4, 0.7g $CuSO_4$, $5H_2O$ and 50 ml conc. H_2SO_4 and proceed as given in method 3 iv a. 3 onward.

(Ref. 2.4.05, AOAC 1995).".

(*vi*) for item (vii) relating to determination of ammoniacal nitrogen (Distillation Method, the following item shall be substituted, namely:—

"(vii) *Determination of ammoniacal nitrogen*

Dissolve 1 gram prepared sample in 250 ml water. Take 25 ml aliquot in 1 litre distillation flask, add approximately 300 ml of water. Add 10 ml of 45% NaOH for fertilizers which do not contain urea OR

Add 2 grams of freshly ignited carbonate free MgO for fertilizers containing urea.

(*1*) Immediately connect the distillation flask to the distillation assembly and swirl to mix the contents. Heat until all ammonia is distilled (at least 150 ml distillate). Test with red litmus paper, if any ammonia is still coming out.

(*2*) Remove receiving flask. Rinse outlet tube into receiving flask with a small amount of distilled water.

(*3*) Titrate the contents in the receiver conical flask with N/10 NaOH.

(*4*) Determine blank on reagents using same quality of standard acid in receiver conical flask.

(c) *Calculation*:

$$\text{Nitrogen percent (by weight)} = \frac{1.401(V_1N_1-V_2N_2)-(V_3N_1-V_4N_2)\times df}{W}$$

Where:—

V_1= Volume (in ml) of standard acid taken in receiver flash for sample.

V_2 = Volume (in ml) of standard NaOH used in titrating standard acid in receiver flask after distillation.

V_3 = Volume (in ml) of standard acid taken in receiver flask for blank.

V_4 = Volume (in ml) of standard NaOH used in titrating standard acid in receiver flask after distillation in blank.

N_1 = Normality of standard acid.

N_2 = Normality of standard NaOH

W = Weight (in gm) of sample taken

df = Dilution factor of sample";

(*vii*) in item (ix) relating to determination of nitrate nitrogen, the following item shall be substituted, namely:—

"(*ix*) *Determination of Nitrate Nitrogen*

Procedure

(*1*) Determine total nitrogen as given in serial number 3 at item (v) relating to total nitrogen (for Nitrate containing samples), and item (vi) relating to Total Nitrogen (for material with high Cl:NO_3 and material containing only water soluble nitrogen).

(*2*) Weigh 0.5g sample into kheldahl flask. Add 50 ml distilled water and add 2g Ferrous sulphate; heptahydrate and swirl gently, add 20 ml H_2SO_4 and digest over hot flame until all water is evaporated and white fumes appear. Add 0.7 g of Copper Sulphate, 15g Potassium Sulphate and 50 ml conc. H_2SO_4 and proceed as given in serial number 3 at item (iv) paragraph (a). 3 of this part onwards.

Calculation

Nitrate Nitrogen= Total N(1)- N Found in (2).
Reference - AOAC 2. 4. 12- (1995.)".

(*viii*) in item (x) relating to determination of water insoluble nitrogen, in sub-item relating to procedure, in paragraph (3),—

(a) for the figures and abbreviation "2.5"", the figures and letters "60mm" shall be substituted;

(*b*) for the figures and word "42 paper", the figure and word "2 paper" shall be substituted;

(*ix*) in item (xi) relating to determination of urea nitrogen,—

(a) in sub-item (a) relating to Reagents, after paragraph (1), the following paragraph shall be inserted, namely:—

"(2) Verify enzyme activity of urease source periodically. Discard any source which does not produce solution capable of hydrolyzing 0.1g Urea per 20ml.";

(b) in for sub-item relating to "Calculations" and the entries thereunder, the following sub-item and entries shall be substituted, namely:—

Calculation:—

$$\text{Percentage Nitrogen} = \frac{(\text{ml 0.1 N HCl.-ml 0.1N NaOH}) \times 0.1401}{\text{weight of sample}}$$

(x) in item (xii) relating to determination of biuret,—

(a) in paragraph (a) relating to "Reagents", sub-paragraph (4) shall be omitted.

(b) in paragraph (c) relating to "Procedure",—

(i) for the letter and words "A. In urea", the words "In urea" shall be substituted;

(ii) the paragraph heading "B. In mixed fertilizers" and the paragraphs(1) to (9) thereunder shall be omitted.

(xi) in item (xiii),—

(a) in sub-item (a) relating to reagents, in paragraph (3), for the words "Methyl blue", the words "Methylene blue" shall be substituted;

(b) in sub-item (b) relating to procedure, in paragraph (4), for the words "Methylene red", the words "Methyl red" shall be substituted.

(xi) in item (xvi) relating to determination of chlorides other than ammonium chloride,—

(a) in sub-item (a) relating to reagents, in paragraph (3), for the words "Ferrous ammonium sulphate", the words "Ferric ammonium sulphate" shall be substituted;

(b) in sub-item relating to calculations,—

(A) for the figures "7.07", the figures "7.094" shall be substituted;

(B) for the figures "1 - 648", the figures "1.648" shall be substituted.

35. In Schedule II of the said Order, in Part B, under sub-heading "4. Determination of phosphates",—

(i) in item (i), in sub-item (b) relating to procedure, after paragraph (E), the following shall be inserted, namely:—

"*Note*: Paragraph (A) is applicable to all NPK complexes, NPK mixtures (with small amount of organic fertilizers) and paragraph B is applicable for Rock Phosphate.";

(ii) in item (ii),—

(A) in sub-item (a) relating to reagents, in paragraph (3), for the figures and letters "28 ml.", the figures and letters "280 ml" shall be substituted;

(B) in sub-item (b) relating to procedure, in paragraph (2), after the words "glass fibre filter paper", the "or sintered glass Gooch Crucible Grade 4 (30 ml. capacity)" shall be inserted;

(iii) in item (iv), in sub-item (b) in paragraph (1), for the words "ammonium acetate", the words "Ammonium Citrate" shall be substituted;

(iv) in item (vii), in sub-item (b),in paragraph (1), for the figures and letters "2.5 mg", the figures and letter "2.5g." shall be substituted;

(v) for item (vii) and the entries relating thereto, the following item and entries shall be substituted, namely:—

"(vii) Method for Free Phosphoric Acid(as P_2O_5)

(a) *Reagent:*

1. Acetone.
2. Standard Sodium Hydroxide Solution -0.1 N
3. Bromo Cresol green indicator solution - Dissolve 0.1 g Bromocresol green in 100 ml of rectified spirit.

(b) *Procedure* :

1. Weigh accurately about 2.5 gm of the prepared sample in a 250 ml Erlenmeyer flask.
2. Add 100 ml neutral acetone. Fix to a wrist action shaker. Shake for one hour.
3. Filter rapidly through whatman filter paper No. 1 in to 250 ml. Erlenmeyer flask, wash with four time, 10 ml portion of acetone.
4. Evaporate acetone as far as possible.
5. Add about 50 ml water and drops of bromocresol green indicator.
6. Titrate with standard NaOH solution, until the colour changes from yellow to blue.

Calculation :

$$\frac{\text{Free phosphoric acid (as } P_2O_5)}{\text{Per cent. by weight}} = \frac{7.1 \times N \times V}{W}$$

Where: N = Normaility of standard NaOH solution.
V = Volume of standard NaOH used.
W= Weight in gm of sample taken for the test.

[Ref. IS 6092 (Part -3) 1985.]".

36. In Schedule II of the said Order, in Part B, under sub-heading "**5.Determination of Potassium**",—

(i) item (i) "Perchloric acid method" and the entries relating thereto shall be omitted;

(ii) in item (ii) relating to Sodium tetraphenyl boron method,—

(a) in sub-item (a) relating to "Reagents", in paragraph (3),—

(A) for the figures and letters "20-25 ml.", the figures and letters "20-25 gms." shall be substituted;

(B) for the letters "NOH", the letters "NaOH" shall be substituted;

(C) for the figures and letters "1ml. STPB--1", the figures and letters "1 ml. STPB=1"shall be substituted;

(b) in sub-item (c) relating to preparation of solution, in paragraph (1), in sub-paragraph A, for the words, figures and letters "or factor weight 2.430 gm", the word "sample" shall be substituted;

(c) in sub-item (e) relating to preparation of solution, in paragraph (2), in sub-paragraph A, for the words, figures and letters "or factor weight 2.430 gm." the word "sample" shall be substituted.

37. In Schedule II of the said Order, in Part B, under sub-heading "**7. Method of analysis of zinc sulphate (both heptahydrate and monohydrate)**", in item (iii), in sub-item (b),—

(i) in paragraph (1), in sub-paragraph (B), after the brackets, figures and abbreviation "(20%)", the letters, words and figures"; pH of the solution should be between 9.5-10.0" shall be inserted;

(ii) in paragraph (2) relating to estimation of Zinc in samples,—

(a) for sub-paragraph (A), the following sub--paragraph shall be substituted, namely:—

"(A) Weigh accurately 1.0g. of zinc sulphate sample and transfer to 100 ml. Volumentric flask giving washings with distilled water. Add one drop of Conc. H_2SO_4 and make up the volume with distilled water.";

(b) in paragraph (D), after the words "distilled water" occuring at the end, the letters, words and figures ";pH of the solution should be between 9.5-10.0" shall be added.

38. In Schedule II of the said Order, in Part B, under sub-heading "**8. Alternate method of analysis of zinc sulphate (both Heptahydrate and monohydrate)**",—

(i) in item (ii),—

(a) in sub-item (a) relating to Reagents, for paragraph (1), the following paragraph shall be substituted, namely:—

"(1) Standard Zinc Solution— Weigh accurately 1,0g of Zinc Metal (AR) in a beaker. Add 20 ml. HCL (1:1). Keep it for few hours and allow it to dissolve completely. Transfer the solution to 1 litre volumetric flask. Make up the volume with glass distilled water. This is 1000 ppm. Zinc solution,(hereinafter called Standard A). This solution should be stored in a clean bottle for further use. Dilute 1 ml. of Standard A to 100 ml, to get 10 ppm. Standard Zinc solution designated as Standard B.";

(b) in sub-item (b), in paragraph (1),after the words "shaking well", the words, figure and letters "add 1 ml. of concentrated H_2SO_4" shall be inserted;

(iii) in item (iii), in sub-item (b), for the word, brackets, letter and figures "(Step A-2.2.1), the word, brackets, letter and figures "[Step 8 (ii)(b)(1)]" shall be substituted;

(iv) in item (iv),—

(a) in sub-item (a), in paragraph (2), for the letter "B", the figure "8" shall be substituted;

(b) in sub-item (b), in paragraph (1), for the letter "B", the figure "8" shall be substituted.

39. In Schedule II of the said Order, in Part B, under sub-heading "14. Method of analysis of ammonium molybdate", in item (ii), in sub-item (B) relating to Colorimetric method for determination of Molybdenum, in the paragraph under "*Calculation*", for the figures and letter "2000. W", the figures and letter "2000.X" shall be substituted.

40. In Schedule II of the said Order, in Part B, under sub-heading **"15. Method of analysis of chelated Zinc"**,—

(i) in item (i), relating to reagents, after paragraph (j), the following paragraph shall be added, namely:—

"(k) Triethanolamine (1:1)";

(ii) in item (iii),—

(a) in sub-item (b), after the words "hydroxylamine hydrocloride", the figure, letters and words "2 ml. Triethanolamine solution" shall be added;

(b) in sub-item (c),—

(A) in paragraph (3), after the words "hydroxylamine hydrocloride", the figure, letters and words "2ml. Triethanolamine solution" shall be added;

(B) in paragraph (4), after the words "indicator mixture", the words ", red colour will appear" shall be inserted;

(C) after the entries under the sub-item "Calculations", the following shall be inserted, namely:—

"*Note*.— In case blue colour appears at step (c)(4), proceed as follows:—

1. Titrate with standard manganese sulphate solution to clear Red end point. Note the volume of manganese sulphate added as V7 ml.

2. Add about 1 gram of KCN or NaCN. Swirl the flask cautiously. Blue colour will re-appear.

3. Titrate with standard manganese sulphate solution till blue colour sharply changes to red. Note the volume of manganese sulphate solution add as V8 ml.

Calculation: Per cent. chelated Zinc as Zn-EDTA=65.38 (M2 V 8).".

(D) in paragraph (10), for the figures, letters, and words "4-5 ml.of 15% acqueous potassium cyanide solution", the figure and letters "1g. KCN/NaCN" shall be substituted.

41. In Schedule II of the said Order, in Part B, under sub-heading **"19. Method of analysis of magnesium sulphate"**, in item (ii), in sub-item (A),—

(i) in paragraph (b) relating to preparation of working standards, in sub-paragraph (1), for the figures and letters "8.1 ml.", the figures and letters "1.0 ml." shall be substituted;

(ii) in paragraph (c) relating to procedure, in item (1) relating to preparation of sample solution,—

(A) in sub-paragraph (C), for the words "flask and", the words, figures and letters "flask, add 10 ml. of Strontium chloride solution";

(B) in paragraph (3), for the figures and letters "205.2mm", the figures letters "285.2 mm" shall be substituted.

42. In Schedule II of the said Order, in Part B, under sub-heading **"20. Determination of particle size in different fertilizers"**,—

(i) in the item relating to Calculations, for the words and letters "Weight on sieve (gm)", the words, letters and figures "Weight on sieve (gm) x 100" shall be substituted;

(ii) at the end, the following shall be inserted, namely:—

"*Note*: In case of moist MOP sample, dry the sample at 100°±5°C for two hours (For urea at 70°±5°C). Cool in a desiccator and then proceed for particle size analysis.".

43. In Schedule II of the said Order, in Part B, under sub-heading **"21. Method of analysis of Calcium Nitrate"**, under the item "B. Atomic Absorption Spectrophoto-metric Method",—

(i) in sub-item (1) relating to reagent,—

(a) in paragraph (b), in sub-paragraph (ii), after the existing entries, the following shall be inserted, namely:—

"Or Strontium Chloride Solution:—

Dissolve 15g. Strontium Chloride ($SrCl_26H_2O$) in 0.5NHCl and dilute to 100 ml.";

(b) for paragraph (c) relating to preparation of working standard, the following paragraph shall be substituted, namely:—

"(c) *Preparation of working standard*

Pipette the following volume of 100 ppm Calcium stock solution in 100 ml numbered volumetric flasks. Add 10 ml of Strontium Chloride solution or 20 ml of Lanthanum solution to each flask and make the volume to 100 ml with distilled water.

Flask No.	Volume of 100 ppm. Ca solution Taken (ml.)	Concentration of Calcium (ppm) after making the volume 100ml.
1	0	0
2	1	1
3	2	2
4	3	3
5	4	4
6	5	5."

(iii) in item (2) relating to Procedure, for the existing paragraph, the following paragraphs shall be substituted, namely:—

"(1) Weigh exactly 1.0g. of sample on a clean watch glass and transfer it to 1000 ml. volumetric flask through the funnel giving repeated washings with glass distilled water and make up the volume.

(2) Take 1ml. of prepared solution in 100 ml. volumetric flask, add 20 ml. of Lanthanum solution or 10 ml. of strontium chloride solution and make up the volume. Filter, if required.".

44. In Schedule II of the said Order, in Part B, after sub-heading "21. Determination of Calcium Nitrate" and the entries relating thereto, the following sub-headings and entries shall be inserted, namely:—

"22. Analysis of Micronutrient Fertilisers Mixtures by Atomic Absorption Spectro--photometric Method

(a) *Reagents* :

(1) Acidified water: Dissolve 10 ml of 10% Sulphuric Acid in 10 litre of double distilled water and adjust the pH to 2.5 (± 0.5) with help of a pH meter using H_2SO_4 or NaOH.

(2) Strontium Chloride Solution: Dissolve 7.5g of Strontium Chloride ($SrCl_2.6H_2O$) in one litre of distilled water.

(3) Potassium Sulphate Solution: Dissolve 25 gm of AR Potassium Sulphate in one litre of distilled water.

(b) *Procedure*:

(i) *Preparation of standard stock solution*:

Dissolve the specific quantity of standard material for specific element with the help of suitable solvent as indicated below and make up the volume 1000 ml with distilled water. Further dilute it to suitable flaming range with acidified water in case of Fe, Cu, Mn and Zn. In case of Mg, add 20 ml. of Strontium Chloride and in case of Mo, add 20 ml. of Potassium Sulphate before make up the volume up to the mark, in 100 ml. volumetric flask with acidified water.

Element	Material	Solvent	Concentration in ppm	Flaming range of standard ppm	Wave length in nm	Flame
Zinc	1.0g Metal	30 ml 1:1 HCl	1000	0.2 — 2.0	213.9	Air/C_2H_2
Iron	1.0g Iron wire	30 ml 1:1 HNO_3	1000	2 - 20	248.3	Air/C_2H_2
Manganese	1.0g Metal	50 ml Conc. HCL	1000	0.5 -.5	279.5	Air/C_2H_2
Copper	1.0g Cooper Turning	30 ml (1:1) HNO_3	1000	0.5 - 1	324.8	Air/C_2H_2
Boron	28.5720g Boric Acid	Warm distilled water	5000	400 - 1600	249.8	N_2O/C_2H_2
Molybdenum	1.5 Molybdenum Trioxide	10 ml HCl	1000	20 - 60	313.3	Air/C_2H_2 (Rich) or N_2O/C_2H_2
Magnesium	1.0g Metal Powder	30 ml 1:1 HCl	1000	0.2 - 1	285.2	Air/C_2H_2

(ii) *Preparation of sample solution*:

Weigh 1 gm micronutrient fertilizer mixture (Solid or liquid) transfer to 100 ml. volumetric flask with the help of acidified water and make up the volume up to the mark. Shake well and keep it stand for at least 4-6 hours. Dilute it further to suitable standard working range with acidified water in case of Fe. Cu Mn and Zn. In case of Mg, add 20 ml. of Strontium Chloride and in case of Mo, add 20ml of Potassium Sulphate before making up the volume up to the mark, in 100 ml volumetric flask with acidified water.

(iii) Flaming of Solutions:—

Flame the standard solution of specific element at concentration mode. Then flame the sample solution to observe the concentration (in ppm) of specified element.

Calculation:

% Concentration = X xDilution Factor x 10^{-4}

(X= Concentration in ppm observed by instrument)

23. **Determination of Boron in Micronutrient Fertiliser Mixture-Volumetric Method**

(a) *Reagents*

(1) Mannitol

(2) Bismuth Nitrate Solution: Dissolve 22 gm of Bismuth Nitrate [$(BiNO_3)_3$ $5H_2O$] in 8 ml of conc. Nitric Acid Warm slightly and dilute to 100 ml with distilled water.

(3) Nitric Acid :- Concentrated AR Grade.

(4) Dilute Nitric Acid:- (1:20)

(5) Sodium Hydroxide Solution :- 10% M/V

(6) Sodium Hydroxide Solution -0.02 M

(7) Bromothymol Blue Indicator Solutions.

(b) *Procedure* :

(1) Weigh accurately 2.5 gm of prepared sample in to 250 ml beaker.

(2) Add 2 ml of conc. Nitric Acid and 50 ml of water and warm gently and dilute to 100 ml with water.

(3) Warm the solution (but do not boil).

(4) Slowly add 5 ml of Bismuth Nitrate Solution for each 1% of P_2O_5 per cent. in the sample, from a burette with continuous stirring and maintaining the liquid hot during addition.

(5) Cool and transfer the contents in to 250 ml volumetric flask and dilute up to the mark with distilled water.

(6) Allow precipitate to settle and dilute up to the mark with distilled water.

(7) Filter through a dry filter paper (No. 40) rejecting the first few drops in to a beaker.

(8) Pipette 100 ml of the filtrate in 250 ml beaker, add a few drops of indicator solution.

(9) Add few drops of 10% NaOH solution with thorough stirring until the indicator turns blue.

(10) Filter through a dry filter paper (No.40) into 250 ml beaker and carefully wash the residue several times with cold water. The total volume should be 150 to 200 ml.

(11) Adjust the pH to about 5 by adding diluted HNO_3. Warm to about 90°C (do not boil), and stir vigorously to avoid CO_2. Cool the solution.

(12) Place in the solution, the electrodes of pH meter and adjust the pH to exactly 6.3 using NaOH solution.

(13) Add 10 gm of mannitol and again adjust pH to exactly 6.3 with 0.02 N NaOH solution.

(14) Continue adding mannitol in 10 gm portion till pH remains constant at 6.3. Note the total volume of 0.02 N NaOH used for the 1st addition of Mannitol (Step 13).

(15) Carry out a blank determination on fertilizers mixture to which Borate is not added.

(c) *Calculation* :

$$\%B = \frac{(A-B) \times 0.05405}{W}$$

Where: A = Volume of 0.02 N NaOH solution used in the sample.
B = Volume of 0.02 N NaOH solution used in the blank.

Note: In case phosphate is not present in the sample, proceed as follows:-

(i) Take 2.5 gm of the sample in 250 ml volumetric flask and make up the volume with distilled water.

(ii) proceed as given from step (8) onwards.".

45. In the said Order, in Form A,—

(a) in the heading, the words "WHOLESALE OR RETAIL" shall be omitted;

(b) the expression "registering authority", wherever it occurs, shall be omitted.

46. In the said Order, after Form A, the following forms shall be inserted, namely:—

after Form A, the following Forms shall be inserted, namely:—

"Form A1

MEMORANDUM OF INTIMATION
[*see* clause 8(2)]

1. Details of the Notified Authority to whom application is submitted.

Designation of Notified Authority.....

Place

State of

2. Details of the applicant:

(a) Name of the applicant

(b) Name of the concern

(c) Postal address with telephone number

3. Place of business (Please give full address)

(i) For Sale

(ii) For Storage

4. Whether the application is for—

Manufacturer ☐ Importer ☐ Pool Handling Agency ☐ Wholesale Dealer ☐

Retail Dealer ☐

[Tick mark whichever is applicable]

5. Details of fertilizer and their source in form 'O'*

Name of fertilizer	Whether certificate of source in form 'O' is attached	
(i)	Yes ☐	No ☐
(ii)	Yes ☐	No ☐
(iii)	Yes ☐	No ☐

[Please tick mark whichever is applicable]

6. I have deposited the registration fee of Rs. vide Challan No. Dated in the Bank / Treasury or enclose Demand Draft No. Dated for Rs. drawn on..... in favour of payable at towards registration fees.

7. Whether the intimation is for an authorization letter or a renewal thereof. (Note: In case the intimation is for renewal of authorization letter, the acknowledgement in Form A2 should be submitted for necessary endorsement thereon.)

8. Any other relevant information.

I have read the terms and conditions of eligibility for submission of Memorandum of Intimation and undertake that the same will be complied by me and in token of the same, I have signed the same and is enclosed herewith.

Date

Place *Signature of applicant*

*Attach a separate sheet if the number exceeds three.

TERMS AND CONDITION OF AUTHORISATION

(1) I shall comply with the provisions of the Fertilizer (Control) Order, 1985 and the notifications issued thereunder for the time being in force.

(2) I shall from time to time report to the Notified Authority and inform about change in the premises of sale depot and godowns attached to sale depot.

(3) I shall also submit in time all the returns as may be prescribed by the State Government.

(4) I shall, not sell fertilizers for industrial use.

(5) I shall file a separate Memorandum of Intimation for, where the storage point is located outside the area jurisdiction of the Notified Authority where the sale depot is located.

(6) I shall file a separate MOI for each place when the business of selling fertilizers is intended to be carried on at more than one place.

(7) I shall file separate MOI if I carry on the business of fertilizers both as retail and wholesale dealer.

(8) I confirm that my previous certificate of Registration or Authorisation is not under Suspension or Cancellation or debarred from selling of fertilizers.

DECLARATION

I/We declare that the information given above is true to the best of my/our knowledge and belief and no part thereof is false or no material information has been concealed.

Date:

Place: *Signature of the Applicant(s)*

FORM A2

ACKNOWLEDGEMENT

[see clause 8(3)]

Received from M/s a complete Memorandum of Intimation alongwith Form O, fee of Rs. by Demand Draft bearing number

dated

2. This acknowledgement shall be deemed to be the letter of authorization entitling the applicant to carry on the business as applied for, for a period of 3 years from the date of issue of this Memo of acknowledgment unless suspended or revoked by the competent authority.

Signature of Notified Authority.

Dated

Renewals

Received from M/S a complete Memorandum of Intimation alongwith Form O, fee of Rs. by Demand Draft bearing number

dated.

2. This acknowledgement shall be deemed to be the letter of authorization entitling the applicant to carry on the business as applied for, for a period of 3 years from the date of issue of this Memo of acknowledgment unless suspended or revoked by the competent authority.

Dated **Signature of Notified Authority.**".

47. In the said Order, in Form B, in the heading, the words "WHOLESALE/RETAIL" shall be omitted.

48. In the said Order, in Form D, in serial number (5) for the words 'Chemical Analysis', the words "Specifications" shall be substituted.

49. In the said Order, in Form E, in serial number (6), for the words "Chemical Analysis", the words "specifications" shall be substituted.

50. In the said Order, in Form 'H', for the existing 'Note', the following Note shall be substituted, namely:—

"Chemical analysis to be indicated shall be one which has been certified by a notified Fertiliser Control Laboratory on the basis of samples drawn by the Fertiliser Inspector".

51. In the said Order, in Form J,—

(a) after serial number (1) and the entry relating thereto, the following serial number and entry shall be inserted namely:—

"(1A) Certificate of Registration Number";

(b) in the entry against serial number (3),—

(i) in item (1), the words "with brand" shall be omitted;

(ii) item (iii) and the entry relating thereto shall be omitted;

(c) in the entry against item (iv), for the words 'Lot No.' , the words and brackets "Batch No. (if applicable)" shall be substituted;

(d) in the entry against serial No. (5), the words "Serial No." shall be omitted.

52. In the said Order, in Form K,—

(i) in the entry against serial number (1), the words "and Brand" shall be omitted;

(ii) serial numbers (3) and (4) and the entries relating thereto shall be omitted;

(iii) for the words "Signature of Fertiliser Inspector", the words "signature and metallic seal impression of Fertilizer Inspector" shall be substituted.

53. In the said Order, in Form 'L'—

(i) in the entry against serial number (1), the words "and Brand" shall be omitted;

(ii) serial number (3) and the entry relating thereto shall be omitted;

(iii) in serial number 8, in the table, in the entry against serial number (vii), for the words 'Nitrate', the word "Neutral" shall be substituted;

(iv) in the entry relating to 'Remarks', after the existing entry, the following shall be added, namely; "and fails in".

54. In the said Order after Form O, the following Form shall be added, namely:—

"EMBLEM

FORM 'P'
[*See* clause 28(1)(b)]

PARTICULARS OF SAMPLE DRAWN

1. Name and Grade of Fertiliser :
2. Composition :
3. Physical condition of Fertiliser :
4. Code No. :
5. Date of sampling :
6. Name & Address of Fertiliser Inspector drawing sample :

Signature and Metallic Seal
Impression of Fertiliser Inspector.".

[F. No. 2-2/99-Fert Law]
SATISH CHANDER, Jt. Secy.

Note:— The Fertilizer (Control) Order, 1985 was published in the Gazette of India, vide number G.S.R. 758(E) dated the 25th September, 1985 and subsequently amended vide number:—

1. G.S.R. 201(E) dated 14th February, 1986
2. G.S.R. 508(E) dated 19th March, 1986
3. G.S.R. 1160(E) dated 21st October, 1986
4. S.O. 822(E) dated 14th September,1987
5. S.O. 1079(E) dated 11th December, 1987
6. S.O. 252(E) dated 11th March, 1988
7. S.O. 724(E) dated 28th July, 1988
8. S.O. 725(E) dated 28th July, 1988
9. S.O. 940(E) dated 11th October, 1988
10. S.O. 498(E) dated 29th June, 1989
11. S.O. 581(E) dated 27th July, 1989
12. S.O. 673(E) dated 25th August, 1989
13. S.I. 738(E) dated 15th September, 1989
14. S.O. 140(E) dated 12th February, 1990
15. S.O. 271(E) dated 29th March, 1990
16. S.O. 403(E) dated 23rd May, 1990
17. S.O. 675(E) dated 31st August, 1990
18. S.O. 261(E) dated 16th April, 1991
19. S.O. 444(E) dated 2nd July, 1991
20. S.O. 530(E) dated 16th August, 1991
21. S.O. 795(E) dated 22nd November, 1991
22. S.O. 377(E) dated 29th May, 1992
23. S.O. 534(E) dated 20th July, 1992
24. S.O. 826(E) dated 9th November, 1992
25. S.O. 254(E) dated 3rd June, 1993
26. S.O. 397(E) dated 18th June, 1993
27. S.O. 942(E) dated 10th December, 1993
28. S.O. 163(E) dated 14th February, 1994
29. S.O. 340(E) dated 17th April, 1995
30. S.O. 459(E) dated 22nd May, 1995
31. S.O. 835(E) dated 12th October, 1995
32. S.O. 575(E) dated 20th August, 1996
33. S.O. 57(E) dated 22nd January, 1997
34. S.O. 329(E) dated 12th May, 1999
35. S.O. 1068(E) dated 4th Nov., 1999.

MINISTRY OF AGRICULTURE

(Department of Agriculture and Cooperation)

Order

New Delhi, the 16th January, 2003

S. O. 50 (E).— In pursuance of clause 20A of the Fertilizer (Control) Order, 1985 the Central Government hereby fixes the specifications in respect of following provisional fertilizers to be manufactured by M/s. IFFCO for a period of two years from the date of publication of this Order in in the Official Gazette:—

Specification of fertilizers

1. **NPK complex fertilizer fortified with Zinc (12:32:16:0.5)**

(i) Moisture per cent. by weight maximum	1.5
(ii) Total nitrogen per cent. by weight, minimum	12.0
(iii) Ammonical nitrogen per cent. by weight, minimum	9.0
(iv) Urea nitrogen (as N) per cent. by weight, maximum	3.0
(v) Neutral ammonium citrate soluble phosphate (as P_2O_5), per cent. by weight, minimum	32.0
(vi) Water soluble phosphate (as P_2O_5) per cent. by weight, minimum	25.0
(vii) Water soluble potash (as K_2O) per cent. by weight, minimum	16.0
(viii) Zinc (as Zn), per cent. by weight, minimum.	0.5

Particle size - Not less than 90% of the material shall be between 1mm and 4 mm IS sieve and not more than 5% shall be below 1 mm IS sieve.

2. **NPK complex fertilizer fortified with Zinc (10:26:26:0.5)**

(i) Moisture per cent by weight, maximum	1.5
(ii) Total nitrogen per cent. by weight, minimum	10.0
(iii) Ammonical nitrogen per cent. by weight, minimum	7.0
(iv) Urea nitrogen (as N) per cent. by weight, maximum	3.0
(v) Neutral ammonium citrate soluble phosphate (as P_2O_5), per cent. by weight, minimum	26.0
(vi) Water soluble phosphate (as P_2O_5) per cent. by weight, maximum	20.0
(vii) Water soluble potash (as K_2O) per cent. by weight, minimum	26.0
(viii) Zinc (as Zn), per cent. by weight, minimum	0.5

Particle size — Not less than 90% of the material shall be between 1 mm and 4 mm IS sieve and not more than 5% shall be below 1 mm IS sieve.

[F.No.2-2/99 Fert Law]
SATISH CHANDER, Jt Secy.

GOVERNMENT PRINTING PRESS,
PANAJI-GOA
PRICE: Rs. 10.50 paise